

Glacial or Turbarian stage, represented by mountain glaciers, and arctic valley floras, at least towards its close. These consist largely of the herbaceous arctic willows such as *Salix reticulata* and *herbacea* with *Dryas octopetalata*, etc. The fifth interglacial is marked by a gradual amelioration of temperature, the arctic willows being replaced by a close growth of *Salix arbuscula* with *Potentilla comarum*, *Empetrum nigrum*, *Arctostaphylos alpina*, and other sub-arctic forms until finally the moor is converted into a forest with *Betula alba* or *Pinus sylvestris* predominating, the latter with an undergrowth of *Calluna*. These conditions are followed by increasing humidity and precipitation until wet moorland (*Sphagnum*) has replaced the forest and the climate becomes considerably cooler with slight alpine glaciation. Soon, however, the climate becomes warmer, more genial, and drier in fact than it is at the present time, and another forest of *Pinus sylvestris* of large size and with an undergrowth of *Calluna* and some *Corylus* and *Alnus* occupies the region. † Succeeding the pine forests is another era of wet moorlands (*Sphagnum*, *Scirpus*) which gradually changed to the present somewhat drier condition.

While it is regrettable that all of the plant forms discovered have not been identified and listed and while the manner of presentation is susceptible of improvement, the study as a whole is an extremely valuable one and shows the possibilities in a line of work almost wholly neglected in America. It is to be hoped that it will furnish a stimulus to botanists favorably situated in our own northern states and induce them to get a little way below the surface in their ecological studies.

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AN EDITORIAL PLEA

A contemporary magazine writes as follows: We cannot expect the "man who pays" to continue to pay unless he receives value for his money, but the value of a scientific journal, unlike that of a popular magazine, is dependent entirely on gra-

† Proximity to the Atlantic caused the wet moorland to persist in western Scotland at this time.

tuitous contributions. It cannot buy its talent, but must take what material is sent to it.

This plaint must appeal strongly to all editors of scientific journals, but it could truthfully be made more pathetic still ; for, while some editors groan because they " must take what material is sent," most editors moan because of the material that is *not* sent.

Several college professors have said that we have no good magazine devoted to general botany which they can recommend to their students. TORREYA, the more popular journal of the Torrey Botanical Club, would gladly enlarge its scope and increase the amount of its printed matter to become such a journal, but the most willing and aspiring editorial board must have material to edit.

The cruse of oil and the handful of meal have been ours — and that without dregs and scrapings — but help is needed from *more* of our club members and subscribers. That would mean a wider range of subjects and a better monthly selection and arrangement. Then, perhaps, TORREYA would be able to give regularly a scholarly paper on some general phase of botany, a shorter technical paper, at least one somewhat popular illustrated article, reviews of current botanical books and papers, some discussion of apparatus, materials, and methods of interest to teachers of botany, and news items of contemporary botanists and botanical movements. To accomplish this a full editor's drawer is necessary. Were it *once* well-filled, more subscribers or more of those " who pay " would be assured — with sufficient money for more numerous illustrations, which in turn would encourage authors TORREYA-ward.

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